

# Specifications

Model		<b>EXCEN PRO<sup>M</sup></b>		<b>EXCEN PRO<sup>D</sup></b>	
Number of Gantry		4 Gantry		2 Gantry	
Board Dimension (mm)	Dual Lane	Min. Size (mm)	50(L) x 50(W)		
		Max. Size (mm)	350(L) x 310(W)		
		PCB Thickness	0.3 ~ 4.0		
Feeder Capacity (8mm)		Max. 120ea (Docking Cart, Fixed Feeder Base)			
Utility	Power	AC 200/220/380/400/420/480V (50/60Hz, 3Phase) Max. 5.5kVA			
	Air Consumption	0.5 ~ 0.7 MPa (5~7kgf/cm <sup>2</sup> ) 100Nl/min			
Mass		Approx. 2,350kg			
External Dimension (mm)		1,248(L) x 2,420(D) x 1,447(H)			
Head Type	HS Head	MF Head	HP Head		
	Number of Spindles	16 Spindles	8 Spindles	2 Spindles	
Placement Speed (Optimum)		30,000 CPH/Head	19,000 CPH/Head	5,000 CPH/Head	
Placement Accuracy		±35µm@Cpk1.0 (chip)	±35µm@Cpk1.0 (chip)	±30µm@Cpk1.0 (QFP)	
Component Range		03015 ~ □ 8mm (H3mm)	0402 (01005 inch) ~ □ 32mm (Max. H8mm)	0603 (0201 inch) ~ □ 54mm (Max. H28mm)	



## SP Series



Model		<b>SP2-C</b>	<b>SP1-W</b>
Alignment Repeatability		±12.5µm@6σ	±12.5µm@6σ
Wet Print		±25µm@6σ	±25µm@6σ
Cycle Time		5 sec (Excl. Printing Time)	7 sec (Excl. Printing Time)
Board Handling	Max. Size (mm)	350(L) x 250(W) (Single) 350(L) x 250(W) (Dual/Option)	510(L) x 460(W) (Single) 330(L) x 310(W) (Dual)
	Min. Size (mm)	50(L) x 50(W)	50(L) x 50(W)
	Thickness (mm)	0.4 ~ 5.0	0.4 ~ 5.0
	Max. Weight (kg)	1.5	3.0
Stencil	Min. Size (mm)	650(L) x 550(W)	550(L) x 650(W), 650(L) x 550(W)
	Max. Size (mm)	736(L) x 736(W)	736(L) x 736(W)
	Frame Thickness (mm)	30 ~ 40	30 ~ 40
	Matching	Center Standard	Center Standard
Vision	Function	Fiducial Recognition, Inspection	Fiducial Recognition, Inspection
	FOV (mm)	10.6 x 8.0	10.6 x 8.0
	Fiducial Types	Circle, Triangle, Square, Diamond, Cross (●, ▲, ■, ♦, +)	Circle, Triangle, Square, Diamond, Cross (●, ▲, ■, ♦, +)
	Fiducial Size (mm)	0.5 ~ 4.0	0.5 ~ 4.0
Utility	Mass (kg)	Approx. 1,250	Approx. 1,620
	External Dimension L x D x H (mm)	1,376 x 1,200 x 1,904	1,540 x 1,650 x 1,921

\* Under optimum condition of specified by Hanwha Techwin.

\* Specification and appearance are subject to change without prior notice.

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• Please note that specification and product information in this catalog are subject to change without notice.

**EXCEN**  
**LINE SOLUTION**



# EXCEN PRO Series



- Achieves the World's Top Tier Area Productivity (4gantry)
- High Speed Placement with 3types of Modular Head

## HS Head (High Speed)

- 16 Spindles
- 30,000 CPH/Head
- 03015 ~ □ 8mm (H3mm)



## MF Head (Multi Function)

- 8 Spindles
- 19,000 CPH/Head
- 0402 (01005 inch)
- ~ □ 32mm (Max. H8mm)



## HP Head (High Precision)

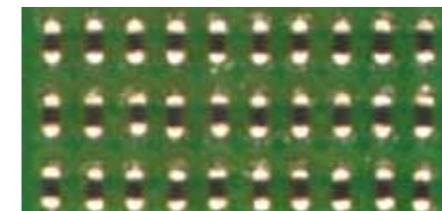
- 2 Spindles
- 5,000 CPH/Head
- 0603 (0201 inch)
- ~ □ 54mm (Max. H28mm)



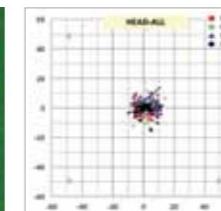
\* Under optimum condition of as defined by Hanwha Techwin.

## EXCEN PRO<sup>M</sup> (4G)

The EXCEN PRO M, a four gantry type high speed modular mounter, boasts high productivity of up to 120,000 CPH when the rotary type HS head with 16 spindles is installed at each of the 4 gantries.

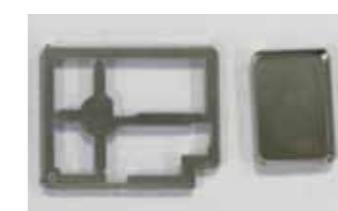


Optimized for the placement of 03015 microchips

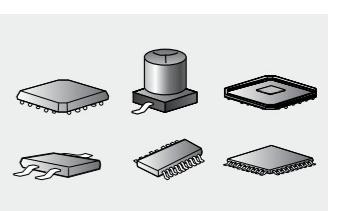


## EXCEN PRO<sup>D</sup> (2G)

The EXCEN PRO D, a two gantry type high speed modular mounter, is suitable for the high speed placement of odd-shaped components and shield cans in the PBI process when equipped with an HP head with 2 spindles.



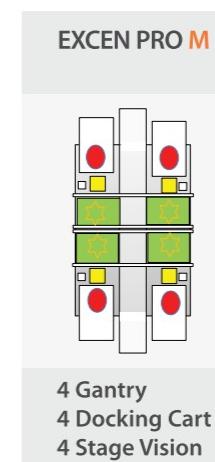
Shield can placement  
(Application of HP head)



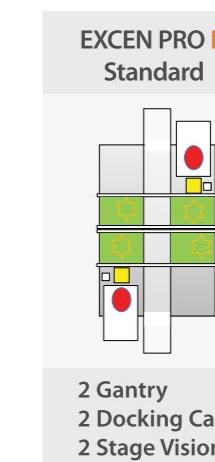
Optimized for the placement of various  
odd-shaped components



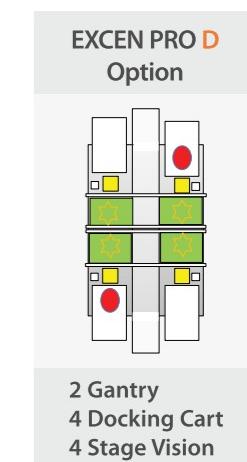
● Head  
■ Stage Vision



4 Gantry  
4 Docking Cart  
4 Stage Vision



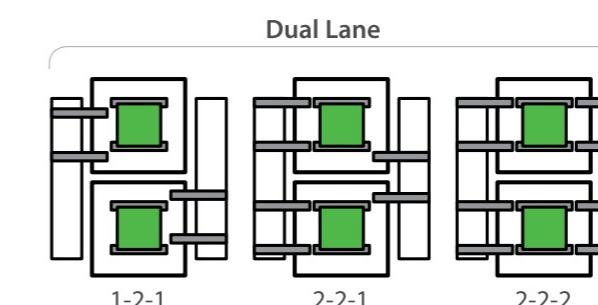
2 Gantry  
2 Docking Cart  
2 Stage Vision



2 Gantry  
4 Docking Cart  
4 Stage Vision

## SP2-C

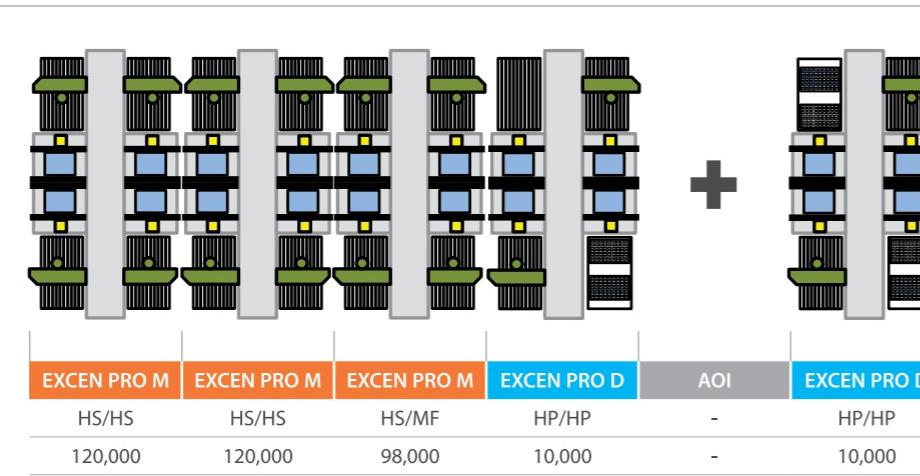
- Printing Cycle Speed : 5 sec (Excl. Printing Time)
- Printing Accuracy : ±12.5µm@6σ
- Applicable PCB : Max. 350(L) x 250(W) / Min. 50(L) x 50(W)
- Machine Size : 1,376(W) x 1,200(D) x 1,904(H)



# EXCEN PRO Line

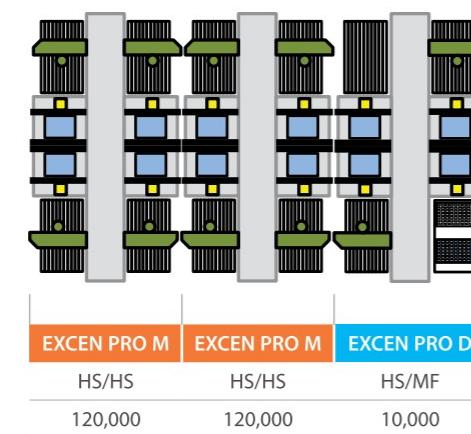
**Mobile, PC**

Head / CPH	Total
Configuration of Head	-
CPH	348,000+10,000



**Automotive**

Head / CPH	Total
Configuration of Head	-
CPH	250,000



**Home Appliances**

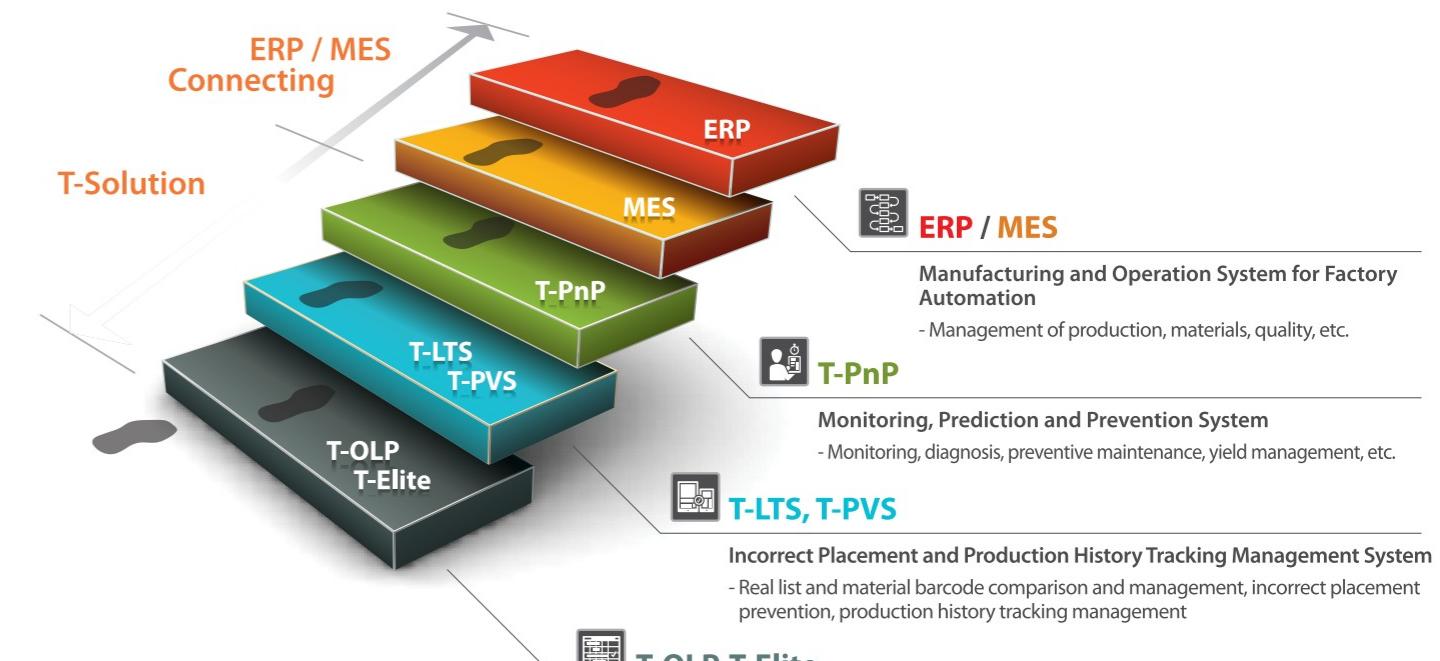
Head / CPH	Total	EXCEN PRO M	EXCEN PRO M	EXCEN PRO M
Configuration of Head	-	HS/HS	HS/MF	HP/HP
CPH	238,000	120,000	98,000	20,000

Total	EXCEN PRO M	EXCEN PRO D
-	HS/HS	MF/HP

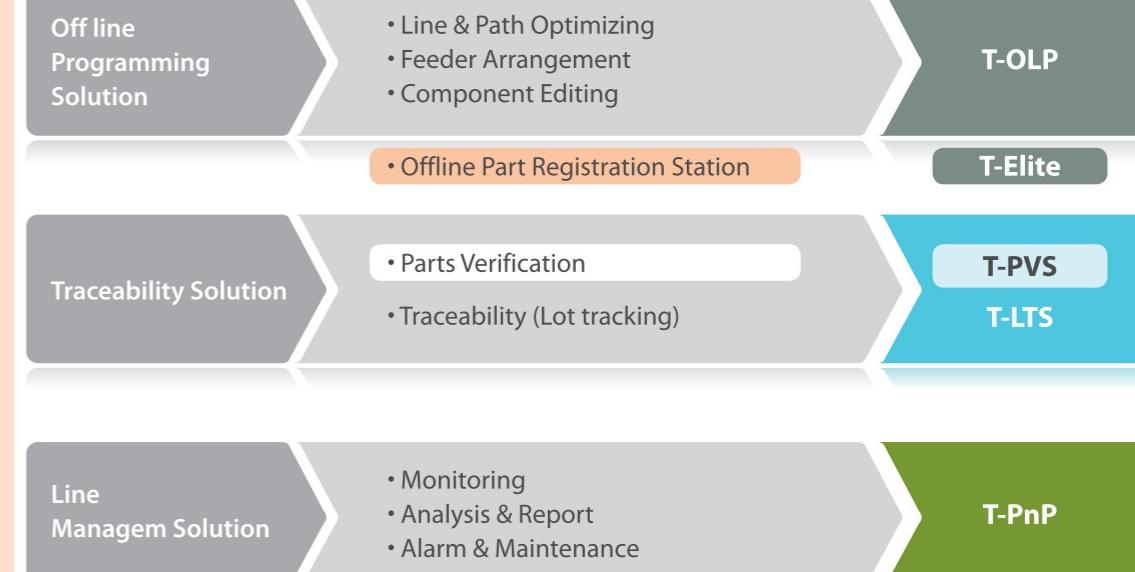
168,000      120,000      48,000

# T-Solution



## T-SOLUTION

### Manufacturing Solution

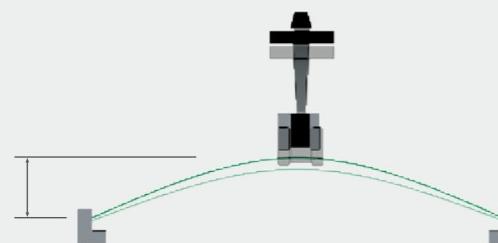


# Special Features

## HIGH RELIABILITY

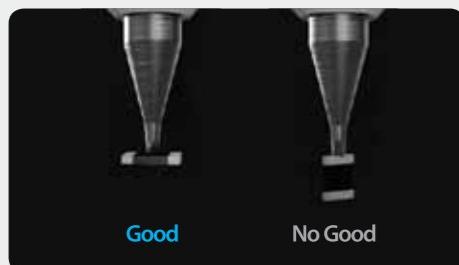
### Back up Pin Less

- Auto sensing head allows compensation for board warp
- Reducing defects and backup pin requirements



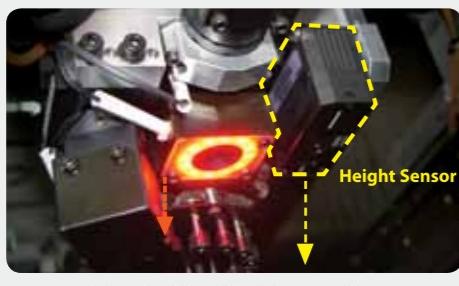
### Side-view Vision System (SVS)

- Detects missed picks or poor part orientation as well as insuring part placement on the PCB



### Automatic Pickup Height Compensation

- Automatically compensates for part pickup height using a height sensor



## FLEXIBLE PRODUCTION

### Dual Lane Architecture

- Allows mixed production of different board as well as simultaneous production of several products



Mixed Production of Different Boards

### Nonstop Changeover

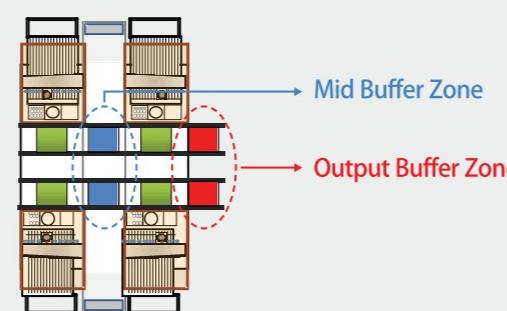
- Nonstop changeover of one side while the other is running
- Maximizes the machine operating rate



Non-stop Device Change

### Output Buffer

- Allows continuous production in the working zone as well as the mid buffer zone by adding an output buffer.

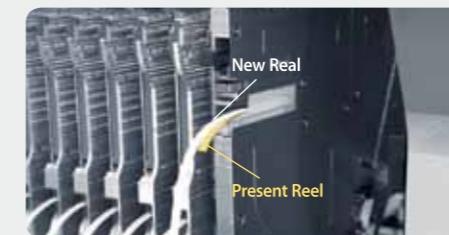


Automatic Pickup Height Compensation

## EASY OPERATION

### Auto Feeder

- Reduces error & labor with auto loading and auto splicing feeders
- Applicable to reels with a small quantity of parts



### Super Slim Single Lane Electrically Driven Feeder

- Secures feeder operational convenience



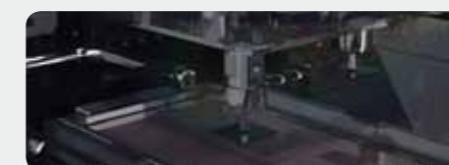
### New Part Editor

- As a system that can easily register components through drag-and-drop, this component editor registers component information through simple clicking of the mouse.



### POP Support

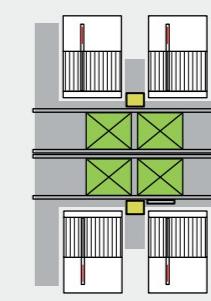
- Allows for high precision POP work at high-speed by supporting a sliding type flux dipping unit



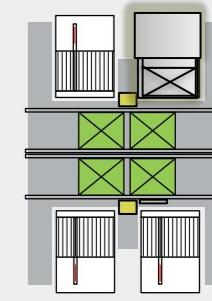
Flux Dipping Unit

## VARIOUS CONFIGURATION

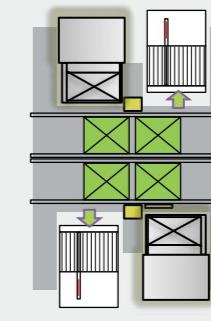
- Maximum 4tray Feeder Support
- 3types of Head Allow Wide Applicable Part Range



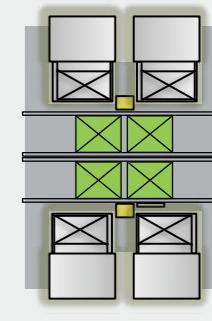
4 Docking Cart



3 D/C + 1 Tray



2 D/C + 2 Tray



4 Tray

### Direct/Side Tray Feeder Support

- Allows for maximized use of a feeder and minimized feeder slot loss when using a tray feeder



Direct Type



Side Type